

Application # 10/056,028
Reply to Office Action dated September 26, 2005

PATENT
P-3964D1D1

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. – 56. Canceled.

57. (Previously Presented) A microbiological testing apparatus having an incubation chamber, said chamber comprising:

a carousel assembly adapted to mount a plurality of test panels each having a plurality of wells for receiving a test inoculum fluid for producing a reaction;

an enclosure surrounding said carousel assembly for preventing intrusion of ambient light into said incubation chamber, said enclosure having a door for providing access to said carousel assembly;

a drive system for continuously rotating said carousel assembly to directly position the test panels for testing by said diagnostic microbiological testing apparatus;

a heating unit for heating said incubation chamber; and

a temperature controller for controlling said heating unit to maintain the temperature of said incubation chamber within a predetermined temperature range.

58. (Previously Presented) A microbiological testing apparatus having an incubation chamber, said chamber comprising:

a carousel assembly adapted to mount a plurality of test panels each having a plurality of wells for receiving a test inoculum fluid for producing a reaction, the carousel assembly comprising a carrier adapted to receive and carry the test panels;

an enclosure surrounding said carousel assembly for preventing intrusion of ambient light into said incubation chamber, said enclosure having a door for providing access to said carousel assembly;

a drive system for continuously rotating said carousel assembly to directly position the test panels for testing by said diagnostic microbiological testing apparatus;

a heating unit for heating said incubation chamber; and

Application # 10/056,028
Reply to Office Action dated September 26, 2005

PATENT
P-3964D1D1

a temperature controller for controlling said heating unit to maintain the temperature of said incubation chamber within a predetermined temperature range.

59. (Previously Presented) The microbiological testing apparatus according to Claim 57, further comprising means for determining a predetermined position of the carousel assembly.

60. (Currently Amended) A microbiological testing apparatus, comprising:
a carousel assembly, comprising:
a frame adapted to receive a panel carrier; and
said panel carrier for carrying a test panel having a plurality of wells for receiving a test inoculum fluid for producing a reaction, said panel carrier receiving the test panel so as to position the test panel in a predetermined manner; and
means for determining the leading edge of the test panel received therein.

61. (Previously Presented) A microbiological testing apparatus according to Claim 60, further comprising means for indicating a completion of testing.

62. (Canceled)

63. (Canceled)

64. (Previously Presented) A method of performing diagnostic microbiological testing, comprising the steps of:

inoculating a plurality of test panels including a plurality of wells for receiving a inoculum fluid comprising a reagent and a microbiological test sample for producing a test reaction;

mounting the test panels on a carousel of diagnostic microbiological testing apparatus; and

operating the testing apparatus to cause (1) the carousel to rotate continuously to position at least one test panel between a light source and a light detection unit of the testing apparatus, (2) a light from the light source to be directed toward the at least one test panel, (3)

Application # 10/056,028
Reply to Office Action dated September 26, 2005

PATENT
P-3964D1D1

the light emitted from, or absorbed by, each of the wells of the at least one test panel due to the test reaction to be detected by the light detection unit, (4) a signal corresponding to the light detected from each of the wells to be generated by the light detection unit, and (5) a test result to be determined for each of the wells based on the generated signal.

65. (Canceled)

66. (Previously Presented) A computer-readable medium having stored therein computer executable code which, when executed, performs a method for operating a diagnostic microbiological testing apparatus, the method comprising the steps of:

rotating a carousel of the testing apparatus, on which are mounted a test panel and a normalizer panel, past a light source and a light detection unit of the testing apparatus at a predetermined angular velocity, the test panel including a plurality of wells for receiving a inoculum fluid comprising a reagent and a microbiological test sample for producing a test reaction and the normalizer panel including a plurality of normalization wells;

detecting with the light detection unit the light emitted from, or absorbed by, one or more of the normalization wells of the normalizer panel and the light emitted from, or absorbed by, one or more of the wells of the test panel due to the test reaction; and

normalizing the detected test panel light using the detected normalizer panel light;

67. (Previously Presented) A computer-readable medium according to Claim 66, the method further comprising the steps of:

monitoring a light intensity of light from the light source directed toward the normalizer panel; and

taking corrective action if the light intensity is outside a predetermined range.

68. (Canceled)

69. (Previously Presented) A computer-readable medium according to Claim 66, the method further comprising the steps of:

Application # 10/056,028
Reply to Office Action dated September 26, 2005

PATENT
P-3964D1D1

generating with the light detection unit a signal corresponding to the normalized light from the one or more wells of the test panel; and

determining a test result for each of the one or more wells of the test panel based on the generated signal.

70. (Previously Presented) A computer-readable medium according to Claim 66, wherein said normalizing step normalizes light on a well-by-well basis.

71. (Previously Presented) A diagnostic microbiological testing apparatus, comprising:
a light source;
a light detection unit; and

a carousel, on which are mounted a test panel including a plurality of wells for receiving a inoculum fluid comprising a reagent and a microbiological test sample for producing a test reaction, and a normalizer panel including a plurality of normalization wells, the carousel being controlled to move past the light source and the light detection unit at a predetermined angular velocity,

wherein the light detection unit detects the light emitted from, or absorbed by, one or more of the normalization wells of the normalizer panel and the light emitted from, or absorbed by, one or more of the wells of the test panel due to the test reaction, and normalizes the detected test panel light using the detected normalizer panel light.

72. (Previously Presented) A method for operating a diagnostic microbiological testing apparatus, comprising the steps of:

rotating a carousel of the testing apparatus, on which are mounted a test panel and a normalizer panel, past a light source and a light detection unit of the testing apparatus at a predetermined angular velocity, the test panel including a plurality of wells for receiving a inoculum fluid comprising a reagent and a microbiological test sample for producing a test reaction, and the normalizer panel including a plurality of normalization wells;

detecting with the light detection unit the light emitted from, or absorbed by, one or

Application # 10/056,028
Reply to Office Action dated September 26, 2005

PATENT
P-3964D1D1

more of the normalization wells of the normalizer panel, and the light emitted from, or absorbed by, one or more of the wells of the test panel due to the test reaction; and
normalizing the detected test panel light using the detected normalizer panel light.